Controls in Practice:

E&J Gallo Winery Spirits Plant
Permitting Authority: San Joaquin Valley Air Pollution Control District
Permit Number: N1183001

E&J Gallo Winery Spirits Plant operates under a title V permit and produces wine and brandy. The brandy aging process is similar to the whiskey aging process. The aging process releases 31.7 tpy VOC after controls. The aging facility is contained in a permanent total enclosure pursuant to EPA Method 204 and uses a regenerative thermal oxidizer to capture VOC emissions with a 98% efficiency.

O'Neill Beverages Co, LLC
Permitting Authority: San Joaquin Valley Air Pollution Control District
Permit Number: C629, C1192824

Brandy storage and aging operations (including 4 warehouses) have regenerative thermal oxidizers. VOC emissions are controlled by the RTO which are required to have a minimum VOC destruction efficiency of 98%. RTO has continuous monitoring that satisfies CAM requirements. The warehouses housing the brandy is required to be certified and maintained as Permanent Total Enclosures (PTE) pursuant to EPA Method 204, and the fan inlet pressure control for each enclosure will be continuously monitored as well. All non-manway access openings will be continuously monitored to record the time periods that each door to the warehouse is opened, and all hours of "normal operation" will be monitored and recorded. The sampling frequency of the facility's continuous monitoring system will be no more than 15 minutes.

Potential Controls:

Alliance Environmental Group (AEG) in 2015: "One control technology that we believe will be effective and usable at existing warehouses is to duct vapors from existing vents through a specially designed control device using biological removal of ethanol prior to any air escaping to the atmosphere. AEG has designed a system that uses this technology and can be used either with or without imparting negative pressure on the warehouse to draw ethanol vapors. Contact RHittinger@AllianceEGI.com with any questions or for more information."

Information on the Changing Whiskey Aging Process and Experimentation:

"New Science of Old Whiskey": Buffalo Trace's Warehouse X which has been looking into controlling airflow, temperature, and humidity and seeing how those factors influence the aging and taste of whiskey.